



HUMAN HEALTH AND PERFORMANCE

Exploring Space | Enhancing Life

Radiation Monitoring, Assessments, and Protection

Understanding Radiation Affects on Humans in Extreme Environments

Our unique capability is at the intersection of information science, computer science, and health care. It deals with the resources, devices, and methods required optimizing the acquisition, storage, retrieval, and use of information in health and biomedicine.



technical expertise complements our human knowledge for monitoring, assessing, and protection solutions for space radiation exposures. These capabilities coupled with technology development, and ground based radiation research, enables NASA to provide an integrated solution to radiation exposure and mitigation.



World Renowned Skills and Unique Capabilities

The Johnson Space Center, a world leader in human spaceflight, possesses unique knowledge, skills, and capabilities that can be applied to solving human health and performance challenges here on earth—particularly those related to operating in extreme and harsh environments.

NASA collaboration expertise is available in the areas of space radiation science and



Johnson Space Center

The enclosed JSC unique Radiation Monitoring, Assessments, and Protection expertise, skills, knowledge and capabilities are available to be used to aid in development of radiation monitoring, assessment tools and human-centered operations that could be used for terrestrial applications such as nuclear power plants; military Army and Navy uses and operations; to aid in development of Commercial Crew radiation hazard detection and protection; new space mission endeavors such as an orbiting commercial venture and space tourism; extreme environments terrestrial operational challenges of working and living in extreme and harsh environments; optimizing for human health and performance; and human-machine interactions.

Radiation Operations Support

The Space Radiation Analysis Group (SRAG) provides 24/7/365 solar radiation environmental monitoring and manned spaceflight operations support.

Radiation Measurement and Analysis

JSC has unique expertise and capabilities in the Space Radiation Analysis Group (47 years of operational spaceflight experience) to assess extreme environment operations, Dosimetry, radiation measurement, design and shielding analysis with *very* strong I/T reliance and history.

Space Radiation Research

JSC has unique expertise and capabilities in radiobiology and physics tools for predicting the biological effects of radiation exposures, and shielding recommendations for habitats, vehicles, and storm shelters.

Radiation Biophysics

JSC has unique capabilities that provide analysis of cellular and molecular damages in humans due to [space] radiation exposure.

Radiation Dosimetry Lab

JSC has a unique Space Radiation Dosimetry Laboratory (SRDL) that provides Radiation Dosimetry support through the measurement of human radiation exposures and characterization of extreme environments.



For the benefit of all

For more information:

NASA Human Health and Performance
Center at

<http://NHHPC.nasa.gov> or go to:

<http://www.nasa.gov/centers/johnson/slsd/>

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